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Amendments to the Specification:

Please amend the paragraph on page 5, lines 17-26 as indicated below:

In the above oscillation mechanism, when the motor [[5]] 2 is driven, the driving pulley provided with the output axis 3 rotates. The rotation of the driving pulley 5 is transmitted to the driven pulley 7 via the transmission belt 8, thus the driven pulley 7 rotates. The oscillation axis 14 rotates in synchronization with the rotation of the driven pulley 7, subsequently the ultrasonic element unit 13 rotates in synchronization with the rotation of the oscillation axis 14. By reversing the rotating direction of the motor at a predetermined time interval, the rotating direction of the ultrasonic element is reversed as well, thus realizing the oscillation of the ultrasonic element.

Please amend the paragraph on page 6, lines 12-27 as indicated below:

FIG. 2 is a schematic view showing an example of the configuration of the detector 1. The detector 1 is structured as an optical incremental-type rotary encoder. In the detector 1, a slit plate 13 is attached to the output axis 3 of the motor so that the slit plate can rotate together. In the slit plate 23, a first slit 24 used for detecting the position and the oscillation origin of the ultrasonic element unit and second slits 20 used for detecting the oscillation angle are formed concentrically about the rotation axis of the slit plate. Light from a light source 21 is directed to the second slit 20, and the amount of light L2 passed through the second slits 20 is detected by a second photoreceptor 22. The light signal detected by the second photoreceptor 22 is converted into an electric signal and subsequently output as an angle signal. The light from the light source 21 is also directed to the first slit 24, and the amount of light L1 passed through the first slit 24 is detected by a first photoreceptor 25. And the light signal detected by the ~~second photoreceptor 22~~ first photoreceptor 25 is converted into an electric signal and subsequently output as an origin-return signal.

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Please amend the paragraph on page 8, lines 31-37 as indicated below:

In a case where the third slits are provided, when the slit plate 23 rotates, the signal (the angle signal) obtained by the third slits becomes, for example, a binary pulse signal having a phase difference of T/4 with respect to the signal (S1) obtained by the second slits 20 as illustrated as [[S2]] S3 in FIG. 3. Thereby, a double-phase pulse can be obtained as an angle signal by providing the third slits, thus improving further angle-detecting resolution.

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